

# PATENT ABSTRACTS OF JAPAN

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## (54) METHOD FOR APPROVING USE OF CHARGEABLE SOFTWARE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a method for approving the use of chargeable software quickly judging the presence or absence of the right to use of chargeable software.

**SOLUTION:** When a user machine 3 installs chargeable software 21, the use machine 3 reads a license code 1.

Then, the user machine 3 installs the chargeable

software 21 when machine ID included in the license

code 1 is equal to the machine ID of the user machine 3,

and when chargeable software ID included in the license

code 1 is equal to chargeable software ID included in a

chargeable software providing medium 2. At that time,

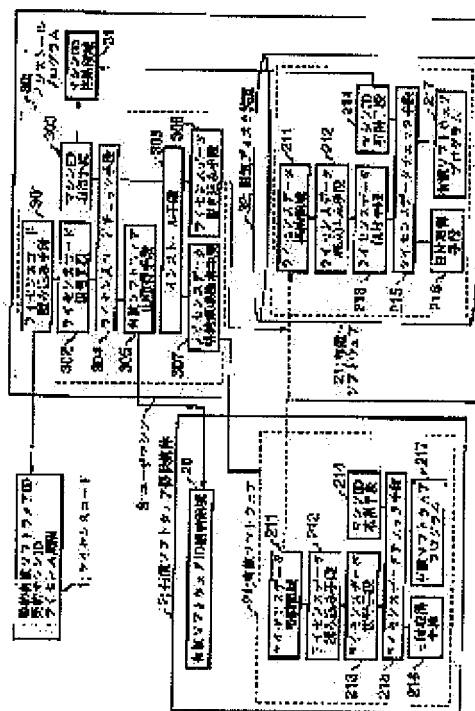
the machine ID included in the license code 1 is written

in the chargeable software 21. When the user machine 3

executes the already installed chargeable software 21, its own ID is collated with machine ID

in the chargeable software 21, and when they are coincident with each other, the execution of

a chargeable software 217 can be executed.



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CLAIMS

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[Claim(s)]

[Claim 1] In the use consent approach of the onerous software at the time of using it, installing in the storage of a computer system the onerous software memorized by the onerous software offer medium The 1st processing which reads the license code inputted by the user at the time of install, The 2nd processing which reads the onerous software ID from said onerous software offer medium, The 3rd processing which collates the machine ID contained in said license code, and the machine ID of said computer system, The 4th processing which collates the onerous software ID contained in said license code, and the onerous software ID read from said onerous software offer medium, The 5th processing which installs in the storage of said computer system the onerous software memorized by said onerous software offer medium when the collating result in said 3rd and 4th processing is "coincidence", Perform 6th processing which writes the machine ID contained in said license code in the license data storage field of the onerous software installed by said 5th processing, and it sets at the time of starting of onerous software. The machine ID memorized to said license data storage field is read. The use consent approach of the onerous software characterized by collating the machine ID contained in this license code, and the machine ID of a computer system, and enabling activation of said onerous software when a collating result is "coincidence."

[Claim 2] Said 1st processing is the use consent approach of the onerous software according to claim 1 characterized by being the processing which replaces with a user's input and reads a license code from a license code offer medium.

[Claim 3] The use consent approach of the onerous software according to claim 1 or 2 characterized by not performing said 3rd processing when the machine ID contained in said license code is the 1st specific value decided beforehand.

[Claim 4] The use consent approach of the onerous software according to claim 2 characterized by replacing the machine ID of said computer system with the machine ID in said license code offer medium, and writing in in this license code storage when the machine ID contained in said license code is the 2nd specific value decided beforehand.

[Claim 5] The use consent approach of the onerous software according to claim 1 or 2 characterized by to collate the license term and the system time of day of a computer system which are contained in the license code memorized to said license data storage field at the time of a startup of said onerous software when said collating result is "coincidence", and to enable activation of said onerous software when this system time of day is within said license term.

[Claim 6] Said license code and said onerous software ID are the use consent approach of onerous software given in the term of either claim 1 characterized by being enciphered respectively and decoding these license codes and the onerous software ID before activation of said 3rd processing and the 4th processing thru/or claim 5.

[Claim 7] The machine ID memorized to said license data storage field is the use consent approach of onerous software given in the term of either claim 1 characterized by performing collating with that Machine ID and machine ID of a computer system after being enciphered and decoding this enciphered

machine ID thru/or claim 6.

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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the use consent approach of the onerous software at the time of using it, installing in the storage of a computer system the onerous software memorized by the onerous software offer medium.

[0002]

[Description of the Prior Art] An example of the conventional onerous software use consent approach is indicated by JP,6-119164,A. In the above-mentioned official report, when using onerous software by a certain machine, in case onerous software is installed in the secondary storage of this machine, the machine ID of the machine which is recorded on the portability record medium and by which the license agreement was carried out and ID of software which are offered with onerous software are stored in the onerous software ID storing field on a secondary storage in a field different from the location where it is stored in onerous software. When performing this onerous software, the information on onerous software is read from an onerous software ID storing field, and onerous software is read and performed after confirming whether onerous software can operate.

[0003]

[Problem(s) to be Solved by the Invention] However, there were the following troubles in this conventional technique. At the time of the check of the activation propriety of onerous software, I hear that the engine performance deteriorates and it is by the onerous software performed frequently, for example, the software offered as a library linked to the program which the user created.

[0004] Since the reason stores onerous software and license data in a magnetic disk drive separately, when performing the program of the user containing onerous software or onerous software, it is because reading of the program of the user containing onerous software or onerous software itself and reading of a license data file are needed. This invention was made in view of such a situation, and aims at offering the use consent approach of onerous software that the existence of the royalty of onerous software can be judged at a high speed.

[0005]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, invention according to claim 1 In the use consent approach of the onerous software at the time of using it, installing in the storage of a computer system the onerous software memorized by the onerous software offer medium The 1st processing which reads the license code inputted by the user at the time of install, The 2nd processing which reads the onerous software ID from said onerous software offer medium, The 3rd processing which collates the machine ID contained in said license code, and the machine ID of said computer system, The 4th processing which collates the onerous software ID contained in said license code, and the onerous software ID read from said onerous software offer medium, The 5th processing which installs in the storage of said computer system the onerous software memorized by said onerous software offer medium when the collating result in said 3rd and 4th processing is "coincidence", Perform 6th processing which writes the machine ID contained in said license code in the license data

storage field of the onerous software installed by said 5th processing, and it sets at the time of starting of onerous software. The machine ID memorized to said license data storage field is read. The machine ID contained in this license code and the machine ID of a computer system are collated, and when a collating result is "coincidence", it is the use consent approach of the onerous software characterized by enabling activation of said onerous software.

[0006] In the use consent approach of onerous software according to claim 1, invention according to claim 2 replaces said 1st processing with a user's input, and is characterized by being the processing which reads a license code from a license code offer medium.

[0007] In the use consent approach of onerous software according to claim 1 or 2, invention according to claim 3 is characterized by not performing said 3rd processing, when the machine ID contained in said license code is the 1st specific value decided beforehand.

[0008] In the use consent approach of onerous software according to claim 2, invention according to claim 4 is characterized by replacing the machine ID of said computer system with the machine ID in said license code offer medium, and writing in in this license code offer medium, when the machine ID contained in said license code is the 2nd specific value decided beforehand.

[0009] Invention according to claim 5 is set to the use consent approach of onerous software according to claim 1 or 2. At the time of starting of said onerous software, when said collating result is "coincidence", it adds. The license term and the system time of day of a computer system which are contained in the license code memorized to said license data storage field are collated, and when this system time of day is within said license term, it is characterized by enabling activation of said onerous software.

[0010] In the use consent approach of onerous software given in the term of either claim 1 thru/or claim 5, said license code and said onerous software ID are enciphered respectively, and invention according to claim 6 is characterized by decoding these license codes and the onerous software ID before activation of said 3rd processing and the 4th processing.

[0011] After enciphering the machine ID by which invention according to claim 7 is memorized to said license code storing field in the use consent approach of onerous software given in the term of either claim 1 thru/or claim 6 and decoding this enciphered machine ID, it is characterized by performing collating with that Machine ID and machine ID of a computer system.

[0012]

[Embodiment of the Invention] Drawing 1 is the explanatory view of the use consent approach of the onerous software by 1 operation gestalt of this invention. In this drawing, the license code 1 is a code which has enciphered Machine ID as the onerous software ID and a license term, and is beforehand memorized by storages of \*\*, such as a floppy disk. In addition, the above-mentioned license term and Machine ID are set, and it is called license data.

[0013] 2 is the onerous software ID storing field 20 and an onerous software offer medium which consists of onerous software 21. The onerous software ID storing field 20 is a storing field which stores ID of the onerous software 21. The onerous software 21 consists of the license data storage field 211, the license data reading means 212, the license data decode means 213, the machine ID acquisition means 214 and the license data check means 215, a date acquisition means 216, and an onerous software program 217.

[0014] The license data storage field 211 is a storing field which stores the license data enciphered. The license data reading means 212 is a means to read the license data which are stored in the license data storage field 211 and which are enciphered. The license data decode means 213 is a means to decode the license data which were read with the license data reading means 212 and which are enciphered. The machine ID acquisition means 214 is a means to read ID of the user machine 3.

[0015] The contract machine ID contained in the decoded license data is except zero, and the license data check means 215 is a means to end activation, when ID of this contract machine ID and the user machine 3 read by the machine ID acquisition means 214 differs. The date acquisition means 216 is a means to read the time of day set to the user machine, when the contract machine ID contained in the decoded license data is 0, or when ID of this contract machine ID and the user machine 3 read by the

machine ID acquisition means 214 is equal.

[0016] The onerous software program 217 is a program performed, when the contract machine ID contained in the decoded license data is 0, or when ID of this contract machine ID and the user machine read by the machine ID acquisition means 214 is equal.

[0017] The user machine 3 consists of an install program 30, a machine ID storing field 31, and a magnetic disk drive 32. An install program 30 consists of the license code reading means 301, the license code decode means 302, the machine ID acquisition means 303, the license code check means 304, the onerous software ID acquisition means 305, an install means 306, a license data storage field retrieval means 307, and a license data write-in means 308.

[0018] The license code reading means 301 is a means to read the inputted license code 1. The license code decode means 302 is a means to decode the license code 1 read by the license code reading means 301. The machine ID acquisition means 303 is a means to read ID of the user machine 3 from the machine ID storing field 31.

[0019] The contract machine ID contained in license data is except zero, and the license code check means 304 is a means to output an error message and to end an install program, when ID of this contract machine ID and the user machine 3 differs, or when ID of the contract onerous software ID contained in license data and the onerous software 21 differs. The onerous software ID acquisition means 305 is a means to read ID of the onerous software 21 from the onerous software storing field 20. The install means 306 is a means to install the onerous software 21 in the user machine 3.

[0020] The license data storage field retrieval means 307 is a means to read the onerous software 21 under install at the time of install of the onerous software 21, and to search the license data storage field 211 from the inside at it. The license data write-in means 308 is a means written in the license data storage field 211 to which the license data storage field retrieval means 307 searched the license data of the onerous software 21 enciphered at the time of install of the onerous software 21. The machine ID storing field 31 is a storing field where ID of the user machine 3 is stored. A magnetic disk drive 32 is equipment which stores the installed software.

[0021] Next, actuation of whole this example is explained to a detail with reference to the flow chart of the block diagram of drawing 1 and drawing 2, and drawing 3. The user machine 3 explains the processing when installing the onerous software 21 using drawing 1 and drawing 2 first.

[0022] First, if the license code 1 is inputted by the user, the license code reading means 301 will read the license code 1 enciphered (step A1). The license code decode means 302 decodes the license code 1 which was read at step A1 and which is enciphered (step A2). The contract machine ID contained in the license code which decoded the license code check means 304 at step A2 investigates whether it is 0 (step A3, A4). Since when the contract machine ID contained in the decoded license code is 0 defines it as usable by every machine, in such a case, it processes from step A8, without ID of the user machine 3 reading.

[0023] In step A4, when the contract machine ID is except zero, the machine ID acquisition means 303 reads ID of the user machine 3 from the machine ID storing field 31 (step A5). It investigates whether the license code check means 304 has equal ID of the decoded contract machine ID and the user machine 3 (steps A6 and A7).

[0024] When ID of the contract machine ID contained in the license code and the user machine 3 is not equal, the license code check means 304 outputs an error message (step A15), and ends an install program, without performing install processing. When the contract machine ID contained in the license code is 0, or when ID of this contract machine ID and the user machine 3 is equal, the onerous software ID acquisition means 305 reads the onerous software ID from the onerous software ID storing field 20 (step A8).

[0025] It investigates whether the license code check means 304 has equal ID of the contract onerous software ID decoded at step A2, and the onerous software 21 read at step A8 (step A9, A10). When ID of the contract onerous software ID and the onerous software 21 is not equal, the license code check means 304 outputs an error message (step A15), and ends an install program, without performing install processing.

[0026] Case [ ID of the contract onerous software ID and the onerous software 21 is equal ] Step [ A10 ], from the onerous software offer medium 2 read [ the install means 306 / the onerous software 21 ], it begins to install the onerous software 21 (step A11).

[0027] The license data storage field retrieval means 307 searches the license data storage field 211 from the onerous software 21 read at step A11 (step A12), and an install program is ended by what the license data write-in means 308 writes in the license data storage field 211 which searched the license data enciphered (step A13) (step A14). In addition, processing which writes license data in the license data storage field 211 is performed on memory.

[0028] Next, the processing when performing onerous software 21 installed in the user machine 1 is explained using drawing 1 and drawing 3. When performing onerous software 21 installed in the user machine 3, the license data reading means 212 reads the license data enciphered from the license data storage field 211 first (step B1). The license data decode means 213 decodes the license data which were read at step B1 and which are enciphered (step B-2). The contract machine ID contained in the license data which decoded the license data check means 215 by step B-2 investigates whether it is 0 (step B3, B4).

[0029] Since when the machine ID of the decoded license data is 0 defines it as usable by every machine, ID of the user machine 3 by which the onerous software 21 operates in such a case processes from step B8, without reading. By step B4, when the contract machine ID is not 0, ID of the user machine 3 by which the onerous software 21 is operating is read with the machine ID acquisition means 214 (step B5), and it investigates whether it is equal to the decoded contract machine ID (step B6, B7). Here, when ID of the contract machine ID and the user machine 3 is not in agreement, an error message is outputted and the onerous (step B12) software 21 is ended, without performing the onerous software program 217.

[0030] By step B3 and B4, when the contract machine ID is 0, when the contract machine ID and the user machine 3 are equal, the system time of day of the user machine 3 by which onerous software is operating is acquired with the date acquisition means 216 by step B7 (step B8). Investigating whether it is within the limits of the license term contained in the license data which system time of day decoded by step B-2, (steps B9 and B10) a being [ it / within the limits of a license term ] case outputs an error message, and ends the onerous (step B12) software 21. When system time of day is within the limits of a license term at step B10, the onerous software program 217 is performed (step B11).

[0031] Drawing 4 is the block diagram showing the outline of the use consent approach of the onerous software by other operation gestalten of this invention. The same sign is attached to the part corresponding to each part of drawing 1 in this drawing, and the explanation is omitted. 10 is a license code offer medium by which the license code 1 is written in, for example, is a floppy disk. 309 is a license code integration / encryption means to unify the data investigated with the license code check means 304, and to encipher. 310 is a license data rewriting means which rewrites the license data stored in the license code offer medium 1, when install of onerous software is successful.

[0032] Next, with reference to the block diagram of drawing 4, and the flow chart of drawing 5, this example explains processing in case the user machine 3 installs the onerous software 21. First, the license code reading means 301 reads the license code 1 enciphered from the license code offer medium 10 (step C1). The license code decode means 302 decodes the license code 1 which was read at step C1 and which is enciphered (step C2).

[0033] The contract machine ID contained in the license code 1 which decoded the license code check means 304 at step C2 investigates whether it is 0 or -1 (steps C3 and C4). When the contract machine ID contained in the license code which defined as usable by every machine, and was decoded when the contract machine ID contained in the decoded license code was 0 is -1, only the 1st time of the beginning is usable by every machine, and 2nd henceforth defines it as usable only by the machine used first.

[0034] Furthermore, when the contract machine ID is 0 or -1, the machine ID acquisition means 303 reads ID of the user machine 3 from the machine ID storing field 31 (step C16). At step C4, when Machine ID is except 0 or -1, the machine ID acquisition means 303 reads ID of the user machine 3



from the machine ID storing field 31 (step C5). If the machine ID acquisition means 303 reads ID of the user machine 3, the license code check means 304 will investigate whether ID of the decoded contract machine ID and the user machine 3 is equal (steps C6 and C7).

[0035] When ID of the contract machine ID contained in the license code and the user machine 3 is not equal, the license code check means 304 outputs an error message (step C15), and ends an install program, without performing install processing. When the machine ID contained in the license code is 0 or -1, or when ID of the contract machine ID contained in the license code and the user machine 3 is equal, the onerous software ID acquisition means 305 reads ID of the onerous software 21 from the onerous software ID storing field 20 (step C8).

[0036] It investigates whether the license code check means 304 has equal ID of the contract onerous software ID decoded at step C2, and the onerous software 21 read at step C8 (steps C9 and C10). When ID of the contract onerous software ID and the onerous software 21 is not equal, the license code check means 304 outputs an error message (step C15), and ends an install program, without performing install processing.

[0037] At step C10, when ID of the contract onerous software ID and the onerous software 21 is equal, the contract machine ID contained in the license code which decoded the license code check means 304 confirms whether to be -one (step C17). At step C17, when the contract machine ID is -1, license code integration / encryption means 309 unifies ID of the license data decoded at step C2, and the user machine 3, and enciphers a series of unified license data (step C18).

[0038] Case [ when the contract machine ID is except -one, or / the processing by step 18 finished as step C17 ] Step, from the onerous software offer medium 2 read [ the install means 306 / the onerous software 21 ], it begins to install the onerous software 21 (step C11).

[0039] The license data storage field retrieval means 307 The license data storage field 211 is searched from the onerous software 21 read at step C11 (step C12). The license data write-in means 308 the license data enciphered what is written in the searched license data storage field 211 (step C13) -- an install program -- termination -- becoming (step C14) -- When the contract machine ID is -1, the license code rewriting means 310 writes the license data enciphered at step C18 in the license code offer medium 1, and rewrites the contract machine ID (step C20).

[0040] In addition, processing which writes license data in the license data storage field 211 is performed on memory. Moreover, the processing when performing onerous software 21 installed in the user machine 3 is the same as the processing shown in drawing 2 mentioned above, and explanation is omitted.

[0041]

[Effect of the Invention] The effectiveness that can check activation propriety in processing of onerous software, consequently check processing becomes a high speed is acquired without performing file which stored external license data, and access to nonvolatile memory according to this invention, in case onerous software is used since license data are stored in onerous software as explained above.

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DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the configuration of the computer system which applied the use consent approach of the onerous software by the 1st operation gestalt of this invention.

[Drawing 2] It is a flow chart for explaining install processing in the computer system shown in drawing 1.

[Drawing 3] It is a flow chart for explaining the executive operation of the installed onerous software in the computer system shown in drawing 1.

[Drawing 4] It is the block diagram showing the configuration of the computer system which applied the use consent approach of the onerous software by the 2nd operation gestalt of this invention.

[Drawing 5] It is a flow chart for explaining install processing in the computer system shown in drawing 4.

[Description of Notations]

- 1 License Code
- 10 License Code Offer Medium
- 2 Onerous Software Offer Medium
- 20 Onerous Software ID Storing Field
- 21 Onerous Software
- 211 License Data Storage Field
- 212 License Data Reading Means
- 213 License Data Decode Means
- 214 Machine ID Acquisition Means
- 215 License Data Check Means
- 216 The Date Acquisition Means
- 217 Onerous Software Program
- 3 User Machine
- 30 Install Program
- 301 License Code Reading Means
- 302 License Code Decode Means
- 303 Machine ID Acquisition Means
- 304 License Code Check Means
- 305 Onerous Software ID Acquisition Means
- 306 Install Means
- 307 License Data Storage Field Retrieval Means
- 308 License Data Write-in Means
- 309 License Data Integration and Encryption Means
- 310 License Code Rewriting Means
- 31 Machine ID Storing Field
- 32 Magnetic Disk Drive

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TECHNICAL FIELD

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[Field of the Invention] This invention relates to the use consent approach of the onerous software at the time of using it, installing in the storage of a computer system the onerous software memorized by the onerous software offer medium.

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PRIOR ART

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[Description of the Prior Art] An example of the conventional onerous software use consent approach is indicated by JP,6-119164,A. In the above-mentioned official report, when using onerous software by a certain machine, in case onerous software is installed in the secondary storage of this machine, the machine ID of the machine which is recorded on the portability record medium and by which the license agreement was carried out and ID of software which are offered with onerous software are stored in the onerous software ID storing field on a secondary storage in a field different from the location where it is stored in onerous software. When performing this onerous software, the information on onerous software is read from an onerous software ID storing field, and onerous software is read and performed after confirming whether onerous software can operate.

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EFFECT OF THE INVENTION

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[Effect of the Invention] The effectiveness that can check activation propriety in processing of onerous software, consequently check processing becomes a high speed is acquired without performing file which stored external license data, and access to nonvolatile memory according to this invention, in case onerous software is used since license data are stored in onerous software as explained above.

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TECHNICAL PROBLEM

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[Problem(s) to be Solved by the Invention] However, there were the following troubles in this conventional technique. At the time of the check of the activation propriety of onerous software, I hear that the engine performance deteriorates and it is by the onerous software performed frequently, for example, the software offered as a library linked to the program which the user created.

[0004] Since the reason stores onerous software and license data in a magnetic disk drive separately, when performing the program of the user containing onerous software or onerous software, it is because reading of the program of the user containing onerous software or onerous software itself and reading of a license data file are needed. This invention was made in view of such a situation, and aims at offering the use consent approach of onerous software that the existence of the royalty of onerous software can be judged at a high speed.

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MEANS

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[Means for Solving the Problem] In order to attain the above-mentioned purpose, invention according to claim 1 In the use consent approach of the onerous software at the time of using it, installing in the storage of a computer system the onerous software memorized by the onerous software offer medium The 1st processing which reads the license code inputted by the user at the time of install, The 2nd processing which reads the onerous software ID from said onerous software offer medium, The 3rd processing which collates the machine ID contained in said license code, and the machine ID of said computer system, The 4th processing which collates the onerous software ID contained in said license code, and the onerous software ID read from said onerous software offer medium, The 5th processing which installs in the storage of said computer system the onerous software memorized by said onerous software offer medium when the collating result in said 3rd and 4th processing is "coincidence", Perform 6th processing which writes the machine ID contained in said license code in the license data storage field of the onerous software installed by said 5th processing, and it sets at the time of starting of onerous software. The machine ID memorized to said license data storage field is read. The machine ID contained in this license code and the machine ID of a computer system are collated, and when a collating result is "coincidence", it is the use consent approach of the onerous software characterized by enabling activation of said onerous software.

[0006] In the use consent approach of onerous software according to claim 1, invention according to claim 2 replaces said 1st processing with a user's input, and is characterized by being the processing which reads a license code from a license code offer medium.

[0007] In the use consent approach of onerous software according to claim 1 or 2, invention according to claim 3 is characterized by not performing said 3rd processing, when the machine ID contained in said license code is the 1st specific value decided beforehand.

[0008] In the use consent approach of onerous software according to claim 2, invention according to claim 4 is characterized by replacing the machine ID of said computer system with the machine ID in said license code offer medium, and writing in in this license code offer medium, when the machine ID contained in said license code is the 2nd specific value decided beforehand.

[0009] Invention according to claim 5 is set to the use consent approach of onerous software according to claim 1 or 2. At the time of starting of said onerous software, when said collating result is "coincidence", it adds. The license term and the system time of day of a computer system which are contained in the license code memorized to said license data storage field are collated, and when this system time of day is within said license term, it is characterized by enabling activation of said onerous software.

[0010] In the use consent approach of onerous software given in the term of either claim 1 thru/or claim 5, said license code and said onerous software ID are enciphered respectively, and invention according to claim 6 is characterized by decoding these license codes and the onerous software ID before activation of said 3rd processing and the 4th processing.

[0011] After enciphering the machine ID by which invention according to claim 7 is memorized to said license code storing field in the use consent approach of onerous software given in the term of either



claim 1 thru/or claim 6 and decoding this enciphered machine ID, it is characterized by performing collating with that Machine ID and machine ID of a computer system.

[0012]

[Embodiment of the Invention] Drawing 1 is the explanatory view of the use consent approach of the onerous software by 1 operation gestalt of this invention. In this drawing, the license code 1 is a code which has enciphered Machine ID as the onerous software ID and a license term, and is beforehand memorized by storages of \*\*, such as a floppy disk. In addition, the above-mentioned license term and Machine ID are set, and it is called license data.

[0013] 2 is the onerous software ID storing field 20 and an onerous software offer medium which consists of onerous software 21. The onerous software ID storing field 20 is a storing field which stores ID of the onerous software 21. The onerous software 21 consists of the license data storage field 211, the license data reading means 212, the license data decode means 213, the machine ID acquisition means 214 and the license data check means 215, a date acquisition means 216, and an onerous software program 217.

[0014] The license data storage field 211 is a storing field which stores the license data enciphered. The license data reading means 212 is a means to read the license data which are stored in the license data storage field 211 and which are enciphered. The license data decode means 213 is a means to decode the license data which were read with the license data reading means 212 and which are enciphered. The machine ID acquisition means 214 is a means to read ID of the user machine 3.

[0015] The contract machine ID contained in the decoded license data is except zero, and the license data check means 215 is a means to end activation, when ID of this contract machine ID and the user machine 3 read by the machine ID acquisition means 214 differs. The date acquisition means 216 is a means to read the time of day set to the user machine, when the contract machine ID contained in the decoded license data is 0, or when ID of this contract machine ID and the user machine 3 read by the machine ID acquisition means 214 is equal.

[0016] The onerous software program 217 is a program performed, when the contract machine ID contained in the decoded license data is 0, or when ID of this contract machine ID and the user machine read by the machine ID acquisition means 214 is equal.

[0017] The user machine 3 consists of an install program 30, a machine ID storing field 31, and a magnetic disk drive 32. An install program 30 consists of the license code reading means 301, the license code decode means 302, the machine ID acquisition means 303, the license code check means 304, the onerous software ID acquisition means 305, an install means 306, a license data storage field retrieval means 307, and a license data write-in means 308.

[0018] The license code reading means 301 is a means to read the inputted license code 1. The license code decode means 302 is a means to decode the license code 1 read by the license code reading means 301. The machine ID acquisition means 303 is a means to read ID of the user machine 3 from the machine ID storing field 31.

[0019] The contract machine ID contained in license data is except zero, and the license code check means 304 is a means to output an error message and to end an install program, when ID of this contract machine ID and the user machine 3 differs, or when ID of the contract onerous software ID contained in license data and the onerous software 21 differs. The onerous software ID acquisition means 305 is a means to read ID of the onerous software 21 from the onerous software storing field 20. The install means 306 is a means to install the onerous software 21 in the user machine 3.

[0020] The license data storage field retrieval means 307 is a means to read the onerous software 21 under install at the time of install of the onerous software 21, and to search the license data storage field 211 from the inside at it. The license data write-in means 308 is a means written in the license data storage field 211 to which the license data storage field retrieval means 307 searched the license data of the onerous software 21 enciphered at the time of install of the onerous software 21. The machine ID storing field 31 is a storing field where ID of the user machine 3 is stored. A magnetic disk drive 32 is equipment which stores the installed software.

[0021] Next, actuation of whole this example is explained to a detail with reference to the flow chart of

the block diagram of drawing 1 and drawing 2, and drawing 3. The user machine 3 explains the processing when installing the onerous software 21 using drawing 1 and drawing 2 first.

[0022] First, if the license code 1 is inputted by the user, the license code reading means 301 will read the license code 1 enciphered (step A1). The license code decode means 302 decodes the license code 1 which was read at step A1 and which is enciphered (step A2). The contract machine ID contained in the license code which decoded the license code check means 304 at step A2 investigates whether it is 0 (step A3, A4). Since when the contract machine ID contained in the decoded license code is 0 defines it as usable by every machine, in such a case, it processes from step A8, without ID of the user machine 3 reading.

[0023] In step A4, when the contract machine ID is except zero, the machine ID acquisition means 303 reads ID of the user machine 3 from the machine ID storing field 31 (step A5). It investigates whether the license code check means 304 has equal ID of the decoded contract machine ID and the user machine 3 (steps A6 and A7).

[0024] When ID of the contract machine ID contained in the license code and the user machine 3 is not equal, the license code check means 304 outputs an error message (step A15), and ends an install program, without performing install processing. When the contract machine ID contained in the license code is 0, or when ID of this contract machine ID and the user machine 3 is equal, the onerous software ID acquisition means 305 reads the onerous software ID from the onerous software ID storing field 20 (step A8).

[0025] It investigates whether the license code check means 304 has equal ID of the contract onerous software ID decoded at step A2, and the onerous software 21 read at step A8 (step A9, A10). When ID of the contract onerous software ID and the onerous software 21 is not equal, the license code check means 304 outputs an error message (step A15), and ends an install program, without performing install processing.

[0026] Case [ ID of the contract onerous software ID and the onerous software 21 is equal ] Step [ A10 ], from the onerous software offer medium 2 read [ the install means 306 / the onerous software 21 ], it begins to install the onerous software 21 (step A11).

[0027] The license data storage field retrieval means 307 searches the license data storage field 211 from the onerous software 21 read at step A11 (step A12), and an install program is ended by what the license data write-in means 308 writes in the license data storage field 211 which searched the license data enciphered (step A13) (step A14). In addition, processing which writes license data in the license data storage field 211 is performed on memory.

[0028] Next, the processing when performing onerous software 21 installed in the user machine 1 is explained using drawing 1 and drawing 3. When performing onerous software 21 installed in the user machine 3, the license data reading means 212 reads the license data enciphered from the license data storage field 211 first (step B1). The license data decode means 213 decodes the license data which were read at step B1 and which are enciphered (step B-2). The contract machine ID contained in the license data which decoded the license data check means 215 by step B-2 investigates whether it is 0 (step B3, B4).

[0029] Since when the machine ID of the decoded license data is 0 defines it as usable by every machine, ID of the user machine 3 by which the onerous software 21 operates in such a case processes from step B8, without reading. By step B4, when the contract machine ID is not 0, ID of the user machine 3 by which the onerous software 21 is operating is read with the machine ID acquisition means 214 (step B5), and it investigates whether it is equal to the decoded contract machine ID (step B6, B7). Here, when ID of the contract machine ID and the user machine 3 is not in agreement, an error message is outputted and the onerous (step B12) software 21 is ended, without performing the onerous software program 217.

[0030] By step B3 and B4, when the contract machine ID is 0, when the contract machine ID and the user machine 3 are equal, the system time of day of the user machine 3 by which onerous software is operating is acquired with the date acquisition means 216 by step B7 (step B8). Investigating whether it is within the limits of the license term contained in the license data which system time of day decoded

by step B-2, (steps B9 and B10) a being [ it / within the limits of a license term ] case outputs an error message, and ends the onerous (step B12) software 21. When system time of day is within the limits of a license term at step B10, the onerous software program 217 is performed (step B11).

[0031] Drawing 4 is the block diagram showing the outline of the use consent approach of the onerous software by other operation gestalten of this invention. The same sign is attached to the part corresponding to each part of drawing 1 in this drawing, and the explanation is omitted. 10 is a license code offer medium by which the license code 1 is written in, for example, is a floppy disk. 309 is a license code integration / encryption means to unify the data investigated with the license code check means 304, and to encipher. 310 is a license data rewriting means which rewrites the license data stored in the license code offer medium 1, when install of onerous software is successful.

[0032] Next, with reference to the block diagram of drawing 4, and the flow chart of drawing 5, this example explains processing in case the user machine 3 installs the onerous software 21. First, the license code reading means 301 reads the license code 1 enciphered from the license code offer medium 10 (step C1). The license code decode means 302 decodes the license code 1 which was read at step C1 and which is enciphered (step C2).

[0033] The contract machine ID contained in the license code 1 which decoded the license code check means 304 at step C2 investigates whether it is 0 or -1 (steps C3 and C4). When the contract machine ID contained in the license code which defined as usable by every machine, and was decoded when the contract machine ID contained in the decoded license code was 0 is -1, only the 1st time of the beginning is usable by every machine, and 2nd henceforth defines it as usable only by the machine used first.

[0034] Furthermore, when the contract machine ID is 0 or -1, the machine ID acquisition means 303 reads ID of the user machine 3 from the machine ID storing field 31 (step C16). At step C4, when Machine ID is except 0 or -1, the machine ID acquisition means 303 reads ID of the user machine 3 from the machine ID storing field 31 (step C5). If the machine ID acquisition means 303 reads ID of the user machine 3, the license code check means 304 will investigate whether ID of the decoded contract machine ID and the user machine 3 is equal (steps C6 and C7).

[0035] When ID of the contract machine ID contained in the license code and the user machine 3 is not equal, the license code check means 304 outputs an error message (step C15), and ends an install program, without performing install processing. When the machine ID contained in the license code is 0 or -1, or when ID of the contract machine ID contained in the license code and the user machine 3 is equal, the onerous software ID acquisition means 305 reads ID of the onerous software 21 from the onerous software ID storing field 20 (step C8).

[0036] It investigates whether the license code check means 304 has equal ID of the contract onerous software ID decoded at step C2, and the onerous software 21 read at step C8 (steps C9 and C10). When ID of the contract onerous software ID and the onerous software 21 is not equal, the license code check means 304 outputs an error message (step C15), and ends an install program, without performing install processing.

[0037] At step C10, when ID of the contract onerous software ID and the onerous software 21 is equal, the contract machine ID contained in the license code which decoded the license code check means 304 confirms whether to be -one (step C17). At step C17, when the contract machine ID is -1, license code integration / encryption means 309 unifies ID of the license data decoded at step C2, and the user machine 3, and enciphers a series of unified license data (step C18).

[0038] Case [ when the contract machine ID is except -one, or / the processing by step 18 finished as step C17 ] Step, from the onerous software offer medium 2 read [ the install means 306 / the onerous software 21 ], it begins to install the onerous software 21 (step C11).

[0039] The license data storage field retrieval means 307 The license data storage field 211 is searched from the onerous software 21 read at step C11 (step C12). The license data write-in means 308 the license data enciphered what is written in the searched license data storage field 211 (step C13) -- an install program -- termination -- becoming (step C14) -- When the contract machine ID is -1, the license code rewriting means 310 writes the license data enciphered at step C18 in the license code offer

medium 1, and rewrites the contract machine ID (step C20).

[0040] In addition, processing which writes license data in the license data storage field 211 is performed on memory. Moreover, the processing when performing onerous software 21 installed in the user machine 3 is the same as the processing shown in drawing 2 mentioned above, and explanation is omitted.

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[Translation done.]

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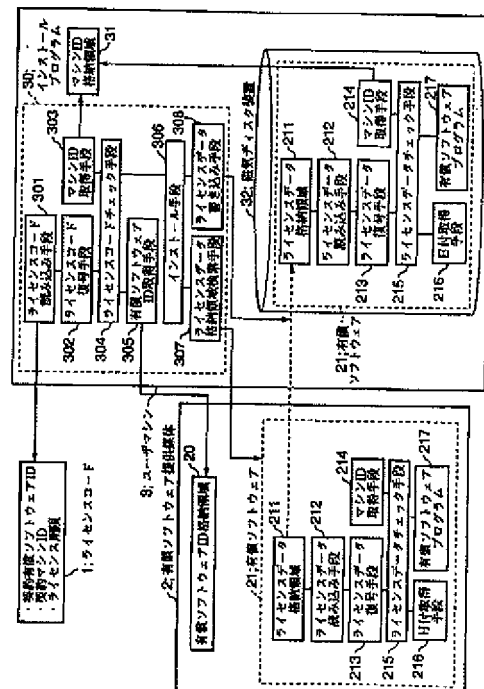
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(54) 【発明の名称】 有償ソフトウェアの使用許諾方法

(57) 【要約】

【課題】 有償ソフトウェアの使用権の有無を高速に判断することができる有償ソフトウェアの使用許諾方法を提供する。

【解決手段】 ユーザマシン3が有償ソフトウェア21をインストールする場合、ユーザマシン3は、ライセンスコード1を読み込む。次に、ユーザマシン3は、ライセンスコード1に含まれるマシンIDとユーザマシン3のマシンIDとが等しく、かつ、ライセンスコード1に含まれる有償ソフトウェアIDと有償ソフトウェア提供媒体2に含まれる有償ソフトウェアIDとが等しい場合に、有償ソフトウェア21のインストールを行う。この時、ライセンスコード1に含まれるマシンIDを有償ソフトウェア21に書き込む。ユーザマシン3がインストール済の有償ソフトウェア21を実行する場合は、自身のIDと有償ソフトウェア21内のマシンIDを照合し、一致していた場合に有償ソフトウェアプログラム217の実行が可能となる。



## 【特許請求の範囲】

【請求項1】 有償ソフトウェア提供媒体に記憶された有償ソフトウェアをコンピュータシステムの記憶媒体にインストールして使用する際の有償ソフトウェアの使用許諾方法において、

インストール時において、

ユーザによって入力されたライセンスコードを読み込む第1の処理と、

前記有償ソフトウェア提供媒体から有償ソフトウェアIDを読み込む第2の処理と、

前記ライセンスコードに含まれるマシンIDと前記コンピュータシステムのマシンIDとを照合する第3の処理と、

前記ライセンスコードに含まれる有償ソフトウェアIDと前記有償ソフトウェア提供媒体から読み込んだ有償ソフトウェアIDとを照合する第4の処理と、

前記第3、第4の処理における照合結果が「一致」であった場合に前記有償ソフトウェア提供媒体に記憶されている有償ソフトウェアを前記コンピュータシステムの記憶媒体へインストールする第5の処理と、

前記第5の処理によってインストールされた有償ソフトウェアのライセンスデータ格納領域へ前記ライセンスコードに含まれるマシンIDを書き込む第6の処理と、

を実行し、

有償ソフトウェアの起動時において、  
前記ライセンスデータ格納領域に記憶されているマシンIDを読み出し、該ライセンスコードに含まれるマシンIDとコンピュータシステムのマシンIDとを照合し、照合結果が「一致」であった場合に前記有償ソフトウェアを実行可能とすることを特徴とする有償ソフトウェアの使用許諾方法。

【請求項2】 前記第1の処理は、ユーザの入力に代えて、ライセンスコード提供媒体からライセンスコードを読み込む処理であることを特徴とする請求項1に記載の有償ソフトウェアの使用許諾方法。

【請求項3】 前記ライセンスコードに含まれるマシンIDが予め決められている第1の特定の値であった場合に、前記第3の処理を行わないことを特徴とする請求項1または請求項2に記載の有償ソフトウェアの使用許諾方法。

【請求項4】 前記ライセンスコードに含まれるマシンIDが予め決められている第2の特定の値であった場合に、前記コンピュータシステムのマシンIDを前記ライセンスコード提供媒体内のマシンIDに代えて該ライセンスコード記憶媒体内に書き込むことを特徴とする請求項2に記載の有償ソフトウェアの使用許諾方法。

【請求項5】 前記有償ソフトウェアの起動時において、前記照合結果が「一致」であった場合に加えて、前記ライセンスデータ格納領域に記憶されているライセンスコードに含まれるライセンス期限とコンピュータシ

ステムのシステム時刻とを照合し、該システム時刻が前記ライセンス期限内であった場合に前記有償ソフトウェアを実行可能とすることを特徴とする請求項1または請求項2に記載の有償ソフトウェアの使用許諾方法。

【請求項6】 前記ライセンスコード及び前記有償ソフトウェアIDは各々暗号化されており、前記第3の処理、第4の処理の実行前において、これらのライセンスコード及び有償ソフトウェアIDを復号することを特徴とする請求項1乃至請求項5のいずれかの項に記載の有償ソフトウェアの使用許諾方法。

【請求項7】 前記ライセンスデータ格納領域に記憶されているマシンIDは暗号化されており、この暗号化されたマシンIDを復号した後、そのマシンIDとコンピュータシステムのマシンIDとの照合を行うことを特徴とする請求項1乃至請求項6のいずれかの項に記載の有償ソフトウェアの使用許諾方法。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】本発明は、有償ソフトウェア提供媒体に記憶された有償ソフトウェアをコンピュータシステムの記憶媒体にインストールして使用する際の有償ソフトウェアの使用許諾方法に関する。

【0002】

【従来の技術】従来の有償ソフトウェア使用許諾方法の一例が、特開平6-119164号公報に記載されている。上記の公報において、有償ソフトウェアをあるマシンで利用する場合は、有償ソフトウェアを該マシンの二次記憶装置にインストールする際に、有償ソフトウェアとともに提供される、可搬性記録媒体に記録されているライセンス契約されたマシンのマシンID、およびソフトウェアのIDを、有償ソフトウェアが格納される場所とは別の領域にある、二次記憶装置上の有償ソフトウェアID格納領域に格納する。この有償ソフトウェアを実行する場合は、有償ソフトウェアID格納領域より有償ソフトウェアの情報を読み込み、有償ソフトウェアが動作可能かどうかをチェックした後、有償ソフトウェアを読み込み実行する。

【0003】

【発明が解決しようとする課題】しかし、この従来技術には、以下のような問題点があった。有償ソフトウェアの実行可否のチェック時には、頻繁に実行される有償ソフトウェア、例えば、利用者が作成したプログラムにリンクされるライブラリとして提供されるソフトウェア等では、性能が劣化するというのである。

【0004】その理由は、有償ソフトウェアとライセンスデータを別々に磁気ディスク装置に格納しているため、有償ソフトウェア、もしくは有償ソフトウェアを含む利用者のプログラムを実行する場合は、有償ソフトウェア、もしくは有償ソフトウェアを含む利用者のプログラムそのものの読み込みと、ライセンスデータファイル

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の読み込みが必要となるためである。本発明はこのような事情に鑑みてなされたもので、有償ソフトウェアの使用権の有無を高速に判断することができる有償ソフトウェアの使用許諾方法を提供することを目的とする。

#### 【0005】

【課題を解決するための手段】上記目的を達成するために、請求項1に記載の発明は、有償ソフトウェア提供媒体に記憶された有償ソフトウェアをコンピュータシステムの記憶媒体にインストールして使用する際の有償ソフトウェアの使用許諾方法において、インストール時にユーザによって入力されたライセンスコードを読み込む第1の処理と、前記有償ソフトウェア提供媒体から有償ソフトウェアIDを読み込む第2の処理と、前記ライセンスコードに含まれるマシンIDと前記コンピュータシステムのマシンIDとを照合する第3の処理と、前記ライセンスコードに含まれる有償ソフトウェアIDと前記有償ソフトウェア提供媒体から読み込んだ有償ソフトウェアIDとを照合する第4の処理と、前記第3、第4の処理における照合結果が「一致」であった場合に前記有償ソフトウェア提供媒体に記憶されている有償ソフトウェアを前記コンピュータシステムの記憶媒体へインストールする第5の処理と、前記第5の処理によってインストールされた有償ソフトウェアのライセンスデータ格納領域へ前記ライセンスコードに含まれるマシンIDを書き込む第6の処理とを実行し、有償ソフトウェアの起動時において、前記ライセンスデータ格納領域に記憶されているマシンIDを読み出し、該ライセンスコードに含まれるマシンIDとコンピュータシステムのマシンIDとを照合し、照合結果が「一致」であった場合に前記有償ソフトウェアを実行可能とすることを特徴とする有償ソフトウェアの使用許諾方法である。

【0006】請求項2に記載の発明は、請求項1に記載の有償ソフトウェアの使用許諾方法において、前記第1の処理は、ユーザの入力に代えて、ライセンスコード提供媒体からライセンスコードを読み込む処理であることを特徴とする。

【0007】請求項3に記載の発明は、請求項1または請求項2に記載の有償ソフトウェアの使用許諾方法において、前記ライセンスコードに含まれるマシンIDが予め決められている第1の特定の値であった場合に、前記第3の処理を行わないことを特徴とする。

【0008】請求項4に記載の発明は、請求項2に記載の有償ソフトウェアの使用許諾方法において、前記ライセンスコードに含まれるマシンIDが予め決められている第2の特定の値であった場合に、前記コンピュータシステムのマシンIDを前記ライセンスコード提供媒体内のマシンIDに代えて該ライセンスコード提供媒体内に書き込むことを特徴とする。

【0009】請求項5に記載の発明は、請求項1または請求項2に記載の有償ソフトウェアの使用許諾方法にお

いて、前記有償ソフトウェアの起動時において、前記照合結果が「一致」であった場合に加えて、前記ライセンスデータ格納領域に記憶されているライセンスコードに含まれるライセンス期限とコンピュータシステムのシステム時刻とを照合し、該システム時刻が前記ライセンス期限内であった場合に前記有償ソフトウェアを実行可能とすることを特徴とする。

【0010】請求項6に記載の発明は、請求項1乃至請求項5のいずれかの項に記載の有償ソフトウェアの使用許諾方法において、前記ライセンスコード及び前記有償ソフトウェアIDが、各々暗号化されており、前記第3の処理、第4の処理の実行前において、これらのライセンスコード及び有償ソフトウェアIDを復号することを特徴とする。

【0011】請求項7に記載の発明は、請求項1乃至請求項6のいずれかの項に記載の有償ソフトウェアの使用許諾方法において、前記ライセンスコード格納領域に記憶されているマシンIDは暗号化されており、この暗号化されたマシンIDを復号した後、そのマシンIDとコンピュータシステムのマシンIDとの照合を行うことを特徴とする。

#### 【0012】

【発明の実施の形態】図1は、本発明の一実施形態による有償ソフトウェアの使用許諾方法の説明図である。この図において、ライセンスコード1は、有償ソフトウェアIDと、ライセンス期限と、マシンIDとを暗号化しているコードであり、フロッピーディスク等の記憶媒体に予め記憶されている。なお、上記ライセンス期限とマシンIDを合わせてライセンスデータという。

【0013】2は、有償ソフトウェアID格納領域20と、有償ソフトウェア21から構成されている有償ソフトウェア提供媒体である。有償ソフトウェアID格納領域20は、有償ソフトウェア21のIDを格納している格納領域である。有償ソフトウェア21は、ライセンスデータ格納領域211と、ライセンスデータ読み込み手段212と、ライセンスデータ復号手段213と、マシンID取得手段214とライセンスデータチェック手段215と、日付取得手段216と、有償ソフトウェアプログラム217とから構成される。

【0014】ライセンスデータ格納領域211は、暗号化されているライセンスデータを格納する格納領域である。ライセンスデータ読み込み手段212は、ライセンスデータ格納領域211に格納されている暗号化されているライセンスデータを読み込む手段である。ライセンスデータ復号手段213は、ライセンスデータ読み込み手段212により読み込んだ、暗号化されているライセンスデータを復号する手段である。マシンID取得手段214は、ユーザマシン3のIDを読み込む手段である。

【0015】ライセンスデータチェック手段215は、

復号したライセンスデータに含まれる契約マシンIDが0以外であり、且つ、同契約マシンIDとマシンID取得手段214により読み込まれたユーザマシン3のIDとが異なる時、実行を終了する手段である。日付取得手段216は、復号したライセンスデータに含まれる契約マシンIDが0である時、または、同契約マシンIDとマシンID取得手段214により読み込まれたユーザマシン3のIDとが等しい時、ユーザマシンにセットされている時刻を読み込む手段である。

【0016】有償ソフトウェアプログラム217は、復号したライセンスデータに含まれる契約マシンIDが0である時、または、同契約マシンIDとマシンID取得手段214により読み込まれたユーザマシンのIDとが等しい時、実行されるプログラムである。

【0017】ユーザマシン3は、インストールプログラム30と、マシンID格納領域31と、磁気ディスク装置32から構成されている。インストールプログラム30は、ライセンスコード読み込み手段301と、ライセンスコード復号手段302と、マシンID取得手段303と、ライセンスコードチェック手段304と、有償ソフトウェアID取得手段305と、インストール手段306と、ライセンスデータ格納領域検索手段307と、ライセンスデータ書き込み手段308とから構成される。

【0018】ライセンスコード読み込み手段301は、入力されたライセンスコード1を読み込む手段である。ライセンスコード復号手段302は、ライセンスコード読み込み手段301により読み出されたライセンスコード1を復号する手段である。マシンID取得手段303は、マシンID格納領域31からユーザマシン3のIDを読み込む手段である。

【0019】ライセンスコードチェック手段304は、ライセンスデータに含まれる契約マシンIDが0以外であり、且つ、同契約マシンIDとユーザマシン3のIDが異なる時、または、ライセンスデータに含まれる契約有償ソフトウェアIDと有償ソフトウェア21のIDとが異なる時、エラーメッセージを出力し、インストールプログラムを終了する手段である。有償ソフトウェアID取得手段305は、有償ソフトウェア格納領域20から有償ソフトウェア21のIDを読み込む手段である。インストール手段306は、有償ソフトウェア21をユーザマシン3にインストールする手段である。

【0020】ライセンスデータ格納領域検索手段307は、有償ソフトウェア21のインストール時に、インストール中の有償ソフトウェア21を読み込み、その中からライセンスデータ格納領域211を検索する手段である。ライセンスデータ書き込み手段308は、有償ソフトウェア21のインストール時に、暗号化されている有償ソフトウェア21のライセンスデータを、ライセンスデータ格納領域検索手段307が検索したライセンスデ

ータ格納領域211に書き込む手段である。マシンID格納領域31は、ユーザマシン3のIDが格納されている格納領域である。磁気ディスク装置32は、インストールされたソフトウェアを格納する装置である。

【0021】次に、図1のブロック図及び図2、図3のフローチャートを参照して本実施例の全体の動作について詳細に説明する。最初にユーザマシン3が、有償ソフトウェア21をインストールする時の処理を、図1、図2を用いて説明する。

【0022】まず、ライセンスコード1がユーザにより入力されると、ライセンスコード読み込み手段301は、暗号化されているライセンスコード1を読み込む（ステップA1）。ライセンスコード復号手段302は、ステップA1で読み込まれた暗号化されているライセンスコード1を復号する（ステップA2）。ライセンスコードチェック手段304は、ステップA2で復号したライセンスコードに含まれている契約マシンIDが0かどうか調べる（ステップA3、A4）。復号したライセンスコードに含まれる契約マシンIDが0の場合は、どのマシンでも使用可能であると定義するため、このような場合は、ユーザマシン3のIDは読み込まずに、ステップA8より処理を行う。

【0023】ステップA4にて契約マシンIDが0以外であった時、マシンID取得手段303は、マシンID格納領域31より、ユーザマシン3のIDを読み込む（ステップA5）。ライセンスコードチェック手段304は、復号した契約マシンIDとユーザマシン3のIDが等しいかどうか調べる（ステップA6、A7）。

【0024】ライセンスコードチェック手段304は、ライセンスコードに含まれている契約マシンIDとユーザマシン3のIDが等しくない場合は、エラーメッセージを出力し（ステップA15）、インストール処理は行わずにインストールプログラムを終了する。ライセンスコードに含まれている契約マシンIDが0の場合、または同契約マシンIDと、ユーザマシン3のIDが等しい場合、有償ソフトウェアID取得手段305は、有償ソフトウェアID格納領域20から有償ソフトウェアIDを読み込む（ステップA8）。

【0025】ライセンスコードチェック手段304は、ステップA2で復号した契約有償ソフトウェアIDと、ステップA8にて読み込んだ有償ソフトウェア21のIDが等しいかどうか調べる（ステップA9、A10）。ライセンスコードチェック手段304は、契約有償ソフトウェアIDと、有償ソフトウェア21のIDとが等しくない場合は、エラーメッセージを出力し（ステップA15）、インストール処理は行わずにインストールプログラムを終了する。

【0026】ステップA10で、契約有償ソフトウェアIDと、有償ソフトウェア21のIDとが等しい場合、インストール手段306は、有償ソフトウェア提供媒体



2から有償ソフトウェア21を読み込み、有償ソフトウェア21のインストールを始める(ステップA11)。

【0027】ライセンスデータ格納領域検索手段307は、ステップA11で読み込んだ有償ソフトウェア21からライセンスデータ格納領域211を検索し(ステップA12)、ライセンスデータ書き込み手段308が、暗号化されているライセンスデータを、検索したライセンスデータ格納領域211に書き込む(ステップA13)ことによりインストールプログラムは終了となる(ステップA14)。なお、ライセンスデータ格納領域211にライセンスデータを書き込む処理は、メモリ上で行う。

【0028】次にユーザマシン1にインストールされた有償ソフトウェア21を実行するときの処理を図1、図3を用いて説明する。ユーザマシン3にインストールされた有償ソフトウェア21を実行する場合、まず、ライセンスデータ読み込み手段212は、ライセンスデータ格納領域211から、暗号化されているライセンスデータを読み込む(ステップB1)。ライセンスデータ復号手段213は、ステップB1で読み込まれた暗号化されているライセンスデータを復号する(ステップB2)。ライセンスデータチェック手段215は、ステップB2で復号したライセンスデータに含まれる契約マシンIDが0かどうか調べる(ステップB3、B4)。

【0029】復号したライセンスデータのマシンIDが0の場合は、どのマシンでも使用可能であると定義するため、このような場合は、有償ソフトウェア21が動作するユーザマシン3のIDは読み込まずに、ステップB8より処理を行う。ステップB4で、契約マシンIDが0でなかった場合、有償ソフトウェア21が動作しているユーザマシン3のIDをマシンID取得手段214にて読み込み(ステップB5)、復号した契約マシンIDと等しいかどうか調べる(ステップB6、B7)。ここで、契約マシンIDとユーザマシン3のIDとが一致しなかった場合は、エラーメッセージを出力して(ステップB12)有償ソフトウェア21は有償ソフトウェアプログラム217を実行せずに終了する。

【0030】ステップB3、B4にて契約マシンIDが0であった場合、または、ステップB7にて、契約マシンIDとユーザマシン3とが等しかった場合は、有償ソフトウェアが動作しているユーザマシン3のシステム時刻を日付取得手段216にて取得する(ステップB8)。システム時刻がステップB2で復号したライセンスデータに含まれるライセンス期限の範囲内かを調べ(ステップB9、B10)、ライセンス期限の範囲内でない場合は、エラーメッセージを出力して(ステップB12)有償ソフトウェア21を終了する。ステップB10でシステム時刻がライセンス期限の範囲内である場合は、有償ソフトウェアプログラム217を実行する(ステップB11)。

【0031】図4は、本発明の他の実施形態による有償ソフトウェアの使用許諾方法の概略を示す、ブロック図である。同図において図1の各部に対応する部分には同一の符号を付け、その説明を省略する。10は、ライセンスコード1が書き込まれているライセンスコード提供媒体であり、例えば、フロッピーディスクである。309は、ライセンスコードチェック手段304にて調べたデータを統合して暗号化するライセンスコード統合・暗号化手段である。310は、有償ソフトウェアのインストールが成功した場合ライセンスコード提供媒体1に格納されているライセンスデータを書き換えるライセンスデータ書き換え手段である。

【0032】次に、図4のブロック図及び図5のフローチャートを参照して本実施例により、ユーザマシン3が、有償ソフトウェア21をインストールする時の処理を説明する。まず、ライセンスコード読み込み手段301は、ライセンスコード提供媒体10から、暗号化されているライセンスコード1を読み込む(ステップC1)。ライセンスコード復号手段302は、ステップC1で読み込んだ暗号化されているライセンスコード1を復号する(ステップC2)。

【0033】ライセンスコードチェック手段304は、ステップC2で復号したライセンスコード1に含まれている契約マシンIDが0または-1かどうか調べる(ステップC3、C4)。復号したライセンスコードに含まれる契約マシンIDが0の場合は、どのマシンでも使用可能であると定義し、また、復号したライセンスコードに含まれる契約マシンIDが-1の場合は、最初の1回目のみは、どのマシンでも使用可能であり、2回目以降は、最初に使用したマシンのみで使用可能であると定義する。

【0034】さらに、契約マシンIDが0または-1である場合、マシンID取得手段303は、マシンID格納領域31より、ユーザマシン3のIDを読み込む(ステップC16)。ステップC4にてマシンIDが0または-1以外であった場合、マシンID取得手段303は、マシンID格納領域31より、ユーザマシン3のIDを読み込む(ステップC5)。マシンID取得手段303が、ユーザマシン3のIDを読み込むと、ライセンスコードチェック手段304は、復号した契約マシンIDとユーザマシン3のIDが等しいかどうか調べる(ステップC6、C7)。

【0035】ライセンスコードチェック手段304は、ライセンスコードに含まれている契約マシンIDとユーザマシン3のIDが等しくない場合は、エラーメッセージを出力し(ステップC15)、インストール処理は行わずにインストールプログラムは終了する。ライセンスコードに含まれているマシンIDが0または-1の場合、またはライセンスコードに含まれている契約マシンIDと、ユーザマシン3のIDが等しい場合、有償ソフト

トウェアID取得手段305は、有償ソフトウェアID格納領域20から有償ソフトウェア21のIDを読み込む(ステップC8)。

【0036】ライセンスコードチェック手段304は、ステップC2で復号した契約有償ソフトウェアIDと、ステップC8にて読み込んだ有償ソフトウェア21のIDとが等しいかどうか調べる(ステップC9、C10)。ライセンスコードチェック手段304は、契約有償ソフトウェアIDと、有償ソフトウェア21のIDとが等しくない場合は、エラーメッセージを出力し(ステップC15)、インストール処理は行わずにインストールプログラムは終了する。

【0037】ステップC10にて、契約有償ソフトウェアIDと、有償ソフトウェア21のIDとが等しい場合、ライセンスコードチェック手段304は、復号したライセンスコードに含まれる契約マシンIDが-1かどうかチェックする(ステップC17)。ステップC17にて、契約マシンIDが-1の場合、ライセンスコード統合・暗号化手段309は、ステップC2で復号したライセンスデータとユーザマシン3のIDを統合し、統合した一連のライセンスデータを暗号化する(ステップC18)。

【0038】ステップC17で、契約マシンIDが-1以外の場合、または、ステップ18による処理が終わった場合、インストール手段306は、有償ソフトウェア提供媒体2から有償ソフトウェア21を読み込み、有償ソフトウェア21のインストールを始める(ステップC11)。

【0039】ライセンスデータ格納領域検索手段307は、ステップC11で読み込んだ有償ソフトウェア21からライセンスデータ格納領域211を検索し(ステップC12)、ライセンスデータ書き込み手段308が、暗号化されているライセンスデータを、検索したライセンスデータ格納領域211に書き込む(ステップC13)ことによりインストールプログラムは終了となる(ステップC14)が、契約マシンIDが-1の場合、ライセンスコード書き換え手段310は、ステップC18で暗号化したライセンスデータをライセンスコード提供媒体1に書き込み契約マシンIDの書き換えを行う(ステップC20)。

【0040】なお、ライセンスデータ格納領域211にライセンスデータを書き込む処理は、メモリ上で行う。また、ユーザマシン3にインストールされた有償ソフトウェア21を実行するときの処理は、前述した図2に示す処理と同じであり説明は省略する。

【0041】

【発明の効果】以上説明したように、この発明によれば、有償ソフトウェア内にライセンスデータを格納して

いるため、有償ソフトウェアを利用する際、外部のライセンスデータを格納したファイルや、不揮発性メモリへのアクセスを行うことなく、有償ソフトウェアの処理の中で実行可否のチェックを行うことができ、この結果、チェック処理が高速になる効果が得られる。

【図面の簡単な説明】

【図1】 この発明の第1の実施形態による有償ソフトウェアの使用許諾方法を適用したコンピュータシステムの構成を示すブロック図である。

【図2】 図1に示すコンピュータシステムにおける、インストール処理を説明するためのフローチャートである。

【図3】 図1に示すコンピュータシステムにおける、インストールされた有償ソフトウェアの実行処理を説明するためのフローチャートである。

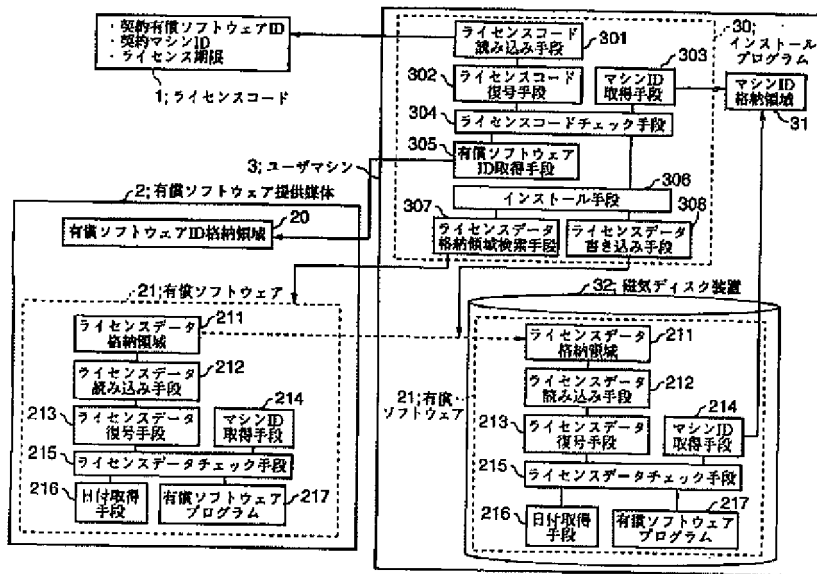
【図4】 この発明の第2の実施形態による有償ソフトウェアの使用許諾方法を適用したコンピュータシステムの構成を示すブロック図である。

【図5】 図4に示すコンピュータシステムにおける、インストール処理を説明するためのフローチャートである。

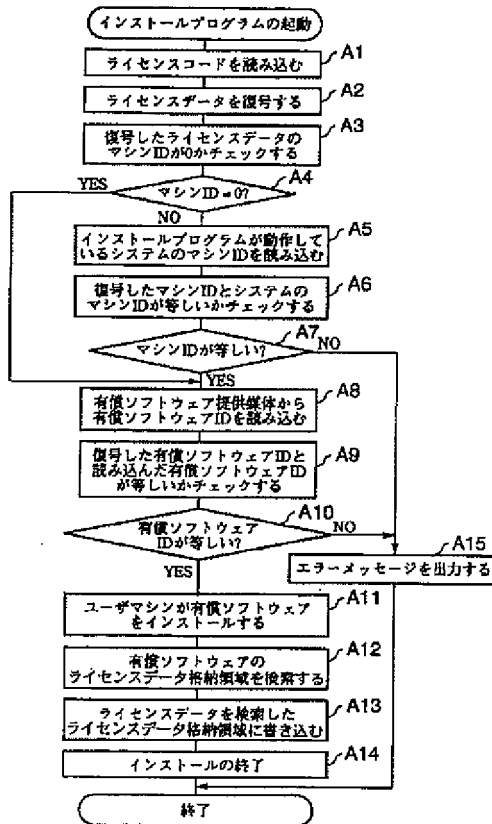
【符号の説明】

- 1      ライセンスコード
- 10     ライセンスコード提供媒体
- 2      有償ソフトウェア提供媒体
- 20     有償ソフトウェアID格納領域
- 21     有償ソフトウェア
- 211    ライセンスデータ格納領域
- 212    ライセンスデータ読み込み手段
- 213    ライセンスデータ復号手段
- 214    マシンID取得手段
- 215    ライセンスデータチェック手段
- 216    日付取得手段
- 217    有償ソフトウェアプログラム
- 3      ユーザマシン
- 30     インストールプログラム
- 301    ライセンスコード読み込み手段
- 302    ライセンスコード復号手段
- 303    マシンID取得手段
- 304    ライセンスコードチェック手段
- 305    有償ソフトウェアID取得手段
- 306    インストール手段
- 307    ライセンスデータ格納領域検索手段
- 308    ライセンスデータ書き込み手段
- 309    ライセンスデータ統合・暗号化手段
- 310    ライセンスコード書き換え手段
- 31     マシンID格納領域
- 32     磁気ディスク装置

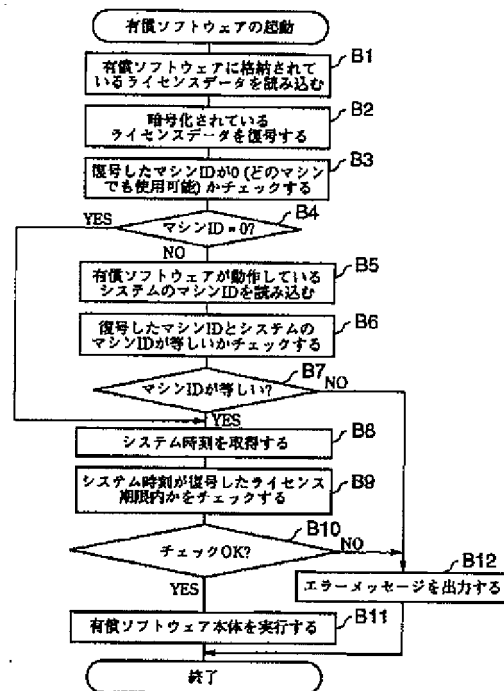
【図1】



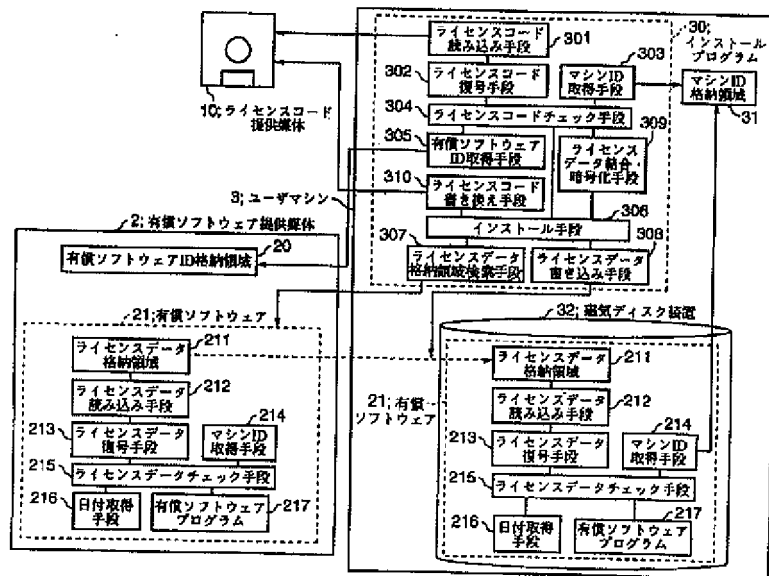
【図2】



【図3】



【図4】



【図5】

